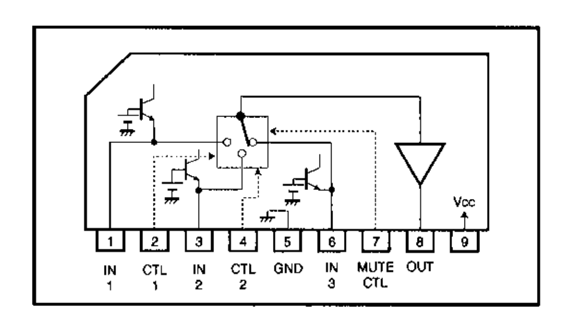
Video signal switcher
BA7021

The BA7021 is a switching IC developed for use in VCRs and televisions. It contains a three-channel analog multiplexer, a built-in mute, and video clamp.

●Applications
Video cassette recorders, televisions and video disc players

●Features
1)3-input / 1-output.
2)Built-in video clamp circuit.
3)Built-in mute circuit.
4)Operates of a 5V (Typ.) power supply and has low power consumption.

●Block diagram



●Absolute maximum ratings (Ta=25℃)

Parameter	Symbol	Limits	Unit
Power supply voltage	V_{CC}	10	V
Power dissipation	Pd	950 *	mW
Operating temperature	Topr	−25~60	℃
Storage temperature	Tstg	−55~125	℃

* Reduced by 9.5mW for each increase in Ta of 1°C over 25°C.

●Electrical characteristics (Unless otherwise specified Ta=25℃ and Vcc=5.0V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Operating voltage	V_{CC}	4.5	5.0	6.0	V	−
Quiessent current	I_Q	−	5.0	8.0	mA	−
Maximum output level	V_{OM}	1.9	2.7	−	V_{P-P}	Switch operation 1
Voltage gain	G_V	−0.5	0.0	+0.5	dB	f=1MHz, V_{IN}=2V_{P-P}, Switch operation 1
Interchannel crosstalk	C_T	−	−55	−45	dB	f=4.43MHz, V_{IN}=2V_{P-P}, Switch operation 2
Mute function	C_{TM}	−	−50	−40	dB	f=4.43MHz, V_{IN}=2V_{P-P}, Switch operation 3
Frequency characteristic	ΔG_V	−0.5	0.0	+0.5	dB	f=4.43MHz / 1MHz, V_{IN}=2V_{P-P}, Switch operation 1
CTL pin switch level	V_{TH}	0.1	0.7	2.0	V	2pin, 4pin, 7pin

●Measurement circuit

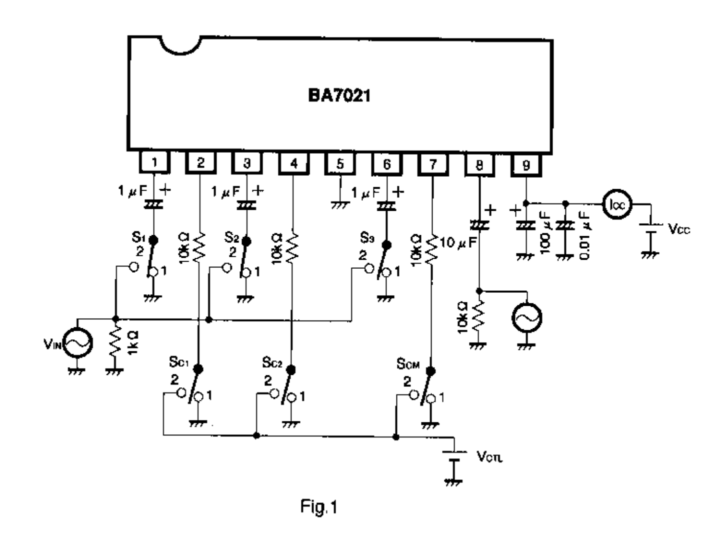


Fig.1

●Switch table

Measurement parameter		Input mode	S1	S2	S3	Sc1	Sc2	Scm	Remarks
1	Input/output characteristic	1pin	2	1	1	2	1	1	1pin→8pin
		3pin	1	2	1	1	2	1	3pin→8pin
		6pin	1	1	2	1	1	1	6pin→8pin
2	Crosstalk	1pin	1	2	1	2	1	1	Input from pin 3
				1	2				Input from pin 6
		3pin	2	1	1	1	2	1	Input from pin 1
			1		2				Input from pin 6
		6pin	2	1	1	1	1	1	Input from pin 1
			1	2					Input from pin 3
3	Muting	1pin	2	1	1	2	1	2	
		3pin	1	2	1	1	2	2	
		6pin	1	1	2	1	1	2	

●External dimensions (Units: mm)

